

Amendments to the drawings.

The attached sheet of drawings include changes to FIG. 1, i.e. inclusion of the words "Prior Art", as suggested by the Examiner. FIGS. 1-3 have been redrawn formally to replace the prior hand-rendered drawings. Replacement sheets are included herewith.

Attachment: Replacement sheets

REMARKS/ARGUMENTS

Claims 1, 3-4, 6-8, 10-15, 17-18, 20 and 22-25 remain in this application. Claims 1, 3-4, 6-8, 10-15, 17-18, 20 and 22-25 have been amended. Support for the amendments can be found in the Application as filed. Claims 2, 5, 9, 16, 19, and 21 have been cancelled.

Drawings

The Examiner has objected to the drawings as failing to comply with 27 C.F.R. 1.121(d). Corrected drawings are enclosed herewith.

Claim Rejections under 35 U.S.C. § 112

Claims 1-25 are rejected under 35 U.S.C. 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner points out that claim 1, for example, does not specify the material which has its thermal stress modified. Various other discrepancies are noted.

Applicants believe the amendments to the claims as provided above overcome the rejections.

Claim Rejections under 35 U.S.C § 102

Claims 1 and 3-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitayama et al. (US 5,916,656).

Applicants believe the amendments to the claims overcome the rejection. Kitayama, et al. is directed to a method of flattening a glass sheet, after the initial forming of the glass sheet. That is, the annealing of Kitayama is an off-line process. During this off-line preparation the glass sheet may be subjected to the temperature cycle illustrated in FIG. 4.

Applicants have amended claim 1 to make clear that the variation in temperature of the subject sheet occurs during the drawing of the sheet from a fabricating apparatus. The apparatus and drawing process are described in Paragraph 0019. In accordance with amended claim 1, the glass sheet traverses a glass transition temperature range. Applicants have recognized that the transition temperature range comprises a temperature range over which the glass undergoes a transformation from a liquid to a glass-like (e.g. solid) material (See paragraph 0022). It is over this transformation region that Applicants have determined a need to control the temperature of the glass sheet, and the temperature of the sheet is varied as a function of the distance of the sheet from the root of the fabricating apparatus. To wit, Kitayama et al. do not disclose varying a temperature of the glass sheet non-linearly as a function of distance from the root of the fabricating apparatus as the glass sheet transitions from a fluid to a glass-like

state such that the thermal stress in the glass sheet is a tension stress, or substantially zero within the glass transition temperature range.

Claim Rejections under 35 U.S.C § 103

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda (JP910-053426) in view of Kitayama et al. (US 5,916,656).

Applicants believe the amendments to the claims overcome the rejection.

Maeda teaches cooling of the glass sheet during draw by passing the sheet through a segmented room. However, Maeda describes a glass transition point. And, while the temperature of each room segment successively decreases (see paragraph 0030 of the machine translation), in setting cooling rates Maeda only addresses cooling from the glass transition temperature point to the strain point of the glass (see, for example, paragraph 0017 of the machine translation). In doing so, Maeda, as Kitayama, fails to grasp the importance of temperature control of the glass sheet as the glass transitions from a liquid to a solid. With regard to the cooling rate(s) above Maeda's glass transition point, Maeda is silent. There is no indication that the cooling rate above the glass transition point is nonlinear (the change in temperature above 500°C might very well be a linear change – Maeda is mute).

Kitayama does not cure the deficiencies of Maeda. Thus, Applicants assert that amended claims 1, 11, and 18 and the claims which depend therefrom, are allowable over Maeda in view of Kitayama et al.

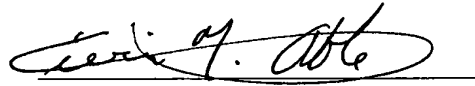
Conclusion

Based upon the above amendments, remarks, and papers of records, Applicants believe the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Applicants believe a two month extension of time is necessary to make this Reply timely. Applicants respectfully request that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorize the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Kevin M. Able at 607-974-2637.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kevin M. Able", is written over a horizontal line.

DATE: 1/23/04

Kevin M. Able

Agent for Assignee

Registration Number: 52,401

Corning Incorporated

SP-TI-03-1

Corning, NY 14831

Phone: 607-974-2637